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EXAMINER

WOODWARD, ANA LUCRECIA

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The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/523,367  
Filing Date: November 14, 2005  
Appellant(s): CREVECOEUR ET AL.

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Bryan H. Davidson  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed September 03, 2009 appealing from the Office action mailed June 03, 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

US 2003/0162900 A1	Joachimi et al	8-2003
WO 02066558	Peduto et al	8-2002

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-8 and 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02066558 (Peduto et al) in view of U.S. 2003/0162900 (Joachim et al).

Peduto et al disclose a polyamide composition, and molded articles therefrom, comprising (A) 5-95 wt.% of a polyamide (meeting appellants' component (a)), (B) 5-95 wt.% of an acrylonitrile-rubber-(methyl)styrene graft copolymer optionally comprising polyamide-compatible functional groups (encompassing appellants' component (c)), (C) 0-30 wt.% of one or more compatibilizing agents comprising polyamide-compatible functional groups (meeting appellants' component (c)), (D) 0-30 wt.% of an elastomer (encompassing appellants' component (c)) and (E) 0.1-30 wt.% of lamellar mineral particles (reading on appellants' additive per claim 7). In Table 1, the compositions additionally comprise 1 wt. % of component (F) which is composed of lubricants, carbon black (meeting appellants' component (d)) and nigrosine (meeting appellants' component (b)). The preferred polyamide 66 meets both the relative viscosity and amine end group concentration per present claim 6. The "polyamide-compatible functional groups" found in Peduto et al's components (B) and (C) are

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the same functional groups found in appellants' branching agent, for example, maleic anhydride, N-phenyl maleimide, etc. (Peduto's examples and claims 4-6 and present specification page 4, lines 1-10 and claims 2-3). Furthermore, Peduto et al's preferred component (D) also comprises maleic anhydride groups (examples and claim 16). Consequently, Peduto et al's components (B), (C) and (D) encompass and read on appellants' branching agent. Noted in particular is Peduto et al's exemplified component C1, styrene/N-phenylmaleimide copolymer grafted with maleic anhydride, which meets' appellants' preferred "copolymer of at least a vinyl aromatic monomer and an unsaturated dicarboxylic acid or a derivative thereof" (per claim 3).

Joachimi et al disclose a polyamide composition similar to Peduto et al's comprising A) 47 to 79 wt.% of a polyamide, B) 0 to 50 wt.% of reinforcing substances, C) 0.1 to 4 wt.% of an additive having a branching and/or polymer chain-extending action, D) 0.1 to 30 wt.% of a rubber-elastic polymer and E) 0.1 to 2 wt. % of processing additives, inclusive of carbon black and nigrosine ([0010], [0035], [0091], etc.). The polyamide composition is used in the production of welded products (claim 8).

The disclosure of Peduto et al meets the requirements of the present claims in terms of the types of materials added. In essence, said disclosure differs from the appealed product claims in not expressly disclosing the contents of carbon black and nigrosine contained by the exemplified component (F). It is maintained that it would have been obvious to one having ordinary skill in the art to employ a component (F), per Peduto et al, comprising conventional amounts of carbon black and nigrosine (inclusive of those presently claimed) with the reasonable expectation of success. In this regard,

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it is noted that the use of the presently claimed nigrosine and carbon black contents in the production of a similar-such polyamide composition is well known in the art, e.g., per Joachimi et al. Accordingly, absent evidence of unusual or unexpected results for the presently claimed carbon black and nigrosine contents, no patentability can be seen in the presently claimed subject matter.

The disclosure of Peduto et al further differs from the appealed process claims in not expressly disclosing the production of a product via a welding technique. It is maintained that it would have obvious to one having ordinary skill in the art to have employed the polyamide composition of Peduto et al in a welding process, as per Joachimi et al, in accordance with the ultimate product and application desired with the reasonable expectation of success. In this regard, it is again noted that Joachimi et al disclose the conventionality of using a polyamide composition similar to Peduto et al's in the production of welded products. Accordingly, absent evidence of unusual or unexpected results, no patentability can be seen in the presently claimed subject matter.

#### **(10) Response to Argument**

Appellants submit that the evidentiary results provided by the specification (Table 2 and Figure 1) clearly establish the statutory non-obviousness of the presently claimed invention. Specifically, appellants contend that a person skilled in the art would not have expected the low shear melt viscosity exhibited by the polyamide compositions comprising a branching agent, nigrosine and carbon black (Examples I-III), as the polyamide composition comprising a branching agent and carbon black hardly shows

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any effect on the low shear melt viscosity (Comparative Example F (CEF)) and the polyamide compositions comprising a branching agent and nigrosine actually show a decreased effect of the branching agent (Comparative Examples G, H and I (CEG, CEH and CEI)).

Appellants' experimental data has been reviewed but is deemed inconclusive due to the presence of unfixed variables and, as such, does not support the conclusions reached by appellants. The comparison of Examples I-III with comparative CEF, CEG, CEH and CEI is of questionable propriety because the compositions contain different amounts of branching agents and different nigrosine, carbon black and nigrosine/carbon black contents. It is maintained that the presence of unfixed variables in these examples renders the results unsuitable as evidence probative of unexpected results for using the presently claimed nigrosine and carbon black contents. For example, it is meaningful to note that only Example I and CEF contain the same amount of branching agent, i.e., 1.1 wt.%, whereas the other examples contain branching agent contents varying from 0.9-1.8 wt.%. Also significant to note is that Examples I-III, containing a combined nigrosine/carbon black content of 0.6 wt.%, are being compared with CEF, containing 0.30 wt.% carbon black, and CEG, CEH and CEI, each containing 0.40 wt.% nigrosine. That is, the combined nigrosine/carbon black content in Examples I-III is not the same as the carbon black content in CEF and the nigrosine content in CEG, CEH and CEI. Thus, it can not be ascertained as to whether the results of Examples I-III are unexpected and not merely reflective of the expected additive effect of using nigrosine and carbon black together.

Even if the evidence of record supported appellants' purported showing of unexpected results, the evidence is considerably narrower in scope than the appealed independent claim. The evidence is based upon a particular branching agent, that is, styrene-maleic anhydride copolymer, whereas the claims are not so limited. Accordingly, even if the evidentiary data set forth in the specification reflected unexpected results, these results are not regarded as representative of the broader scope of branching agents defined by appellants' claims and disclosed by the prior art.

As to appellants' argument that Peduto et al is silent regarding melt viscosity, shear thinning ratio or burst pressure, it is noted that recognition of an additional benefit attendant upon implementing the suggestions of the prior art does not necessarily serve as a basis for patentability. The fact that appellants have recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Appellants' assertion that the styrene maleimide copolymer used by Peduto et al does not have functional groups, and as such is therefore not a branching agent is quite surprising. The styrene maleimide copolymer used by Peduto et al not only has N-phenyl maleimide groups but also maleic anhydride groups grafted thereto. N-phenyl maleimide and maleic anhydride are the very same functional groups preferred by appellants (present specification page 4, lines 1-10 and claims 2-3). Consequently, it is unclear as to why appellants assert that Peduto et al's styrene maleimide copolymer having maleic anhydride grafted groups would not meet their claimed branching agent.



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It is maintained the presently claimed invention as whole would have been obvious to one having ordinary skill in the art. The prior art provides sufficient disclosure and suggestion to one having ordinary skill in the art to arrive at the presently claimed subject matter, no cherry picking is required.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Ana L. Woodward/

Primary Examiner, Art Unit 1796

Conferees:

/James J. Seidleck/

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